Abstract 1 2 The invention relates to a method and an apparatus 3 for use in surveying boreholes. The method of the invention comprises the following steps: providing an instrument package in a leading end of a 6 drillstring, the instrument package comprising first 7 and second single-axis sensors mounted for rotation 8 with the drillstring about the rotational axis of 9 the drillstring, the first sensor being an 10 accelerometer and the second sensor being a magnetic 11 fluxgate or a rate gyro; rotating the drillstring; 12 deriving from the first sensor the inclination angle 13 of the drillstring at the instrument package; and 14 deriving from the second sensor the azimuth angle of 15 the drillstring at the instrument package. 16 17

18 Fig. 1